

“well trodden” it is still possible, in the course of a week, to add half-a-dozen species to the local check list, if indeed such exists, since for the most part such lists have yet to be compiled. Thus in Mauritania ornithologists have so far only traversed the one north-south route!

West Africa, including Zaïre, contains an immense range of habitats, from the desert of the southern edge of the Sahara and the Sahel (wrongly reputed to be ecologically simple) to high forest (rightly reputed as complex), not forgetting montane habitats. The large fluvial river basins of the Senegal and Niger are rich in waterfowl, and present many opportunities for study which should be grasped soon before these areas are upset by reclamation in the name of man’s economic needs.

Biological research, even that which is relatively slight, can bring real satisfaction to the investigator, as the following examples of some results or subjects of research make plain:

Until recently it was believed that the number of Palaearctic species using a western (African) route was less than those using an eastern. In fact, this apparent difference was due to a lack of observers in the west (R. E. Moreau, F. Roux, G. J. Morel).

The fundamental differences of function between the Sahelian savanna and the forest – both in the tropics – have begun to be appreciated. The savanna is characterised by an instability, both seasonal and interannual, resulting in a chaotic situation, and periodic swarming, as in *Quelea* (P. Ward). The forest is more stable, and what is generally accepted as more typically tropical. In savanna, the study of the role of migrants may still produce some surprises, and it may be necessary to revise classical notions of the past in regard to ecological niches and competition. In equatorial forest, in which the study of populations is so difficult, new data are being amassed (A. Brosset and C. Erard in Gabon).

The development of agriculture and the battle against granivorous species constitute a serious menace to the avifauna, especially in the Sahelian region. These dangers, which it does not suffice merely to oppose, since every country has an obligation to improve its quality of life, can be better evaluated and controlled if ornithologists do not shrink from studying species of economic importance.

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Ornithological progress in Eastern Africa during the past 50 years by P. L. Britton

The early ornithology of eastern Africa was well-documented by various authors, in particular Dr. A. Reichenow and Dr. V. G. L. van Someren. This tradition of definitive recording of collected material culminated (for Uganda and Kenya) in the publication (1938) of a prestigious 3 volume work by Sir F. J. Jackson (edited and completed by W. L. Sclater over a period of several years). His extensive bibliography (with notes) included van Someren (1932) and Granvik (1934), but excluded some important later

works, notably Friedmann & Loveridge (1937). With few colour illustrations and no distribution maps, Jackson (1938) is far removed from the modern 'bird-book', for which eastern Africa had to wait another 14 years, but this meticulous work enabled the discerning to identify many of the birds of this important region. Bowen (1926, 1931) provided definitive notes on the birds of the Sudan, and a number of papers appeared on the birds of Tanzania (then Tanganyika, Zanzibar and Pemba) during the 1930s, notably those by R. E. Moreau, R. H. W. Pakenham, W. L. Sclater and J. H. Vaughan in *Ibis* (1930-37), and elsewhere by Bangs & Loveridge (1933) and Lynes (1934). The 4 volumes of Archer & Godman (1937-61) cover northern Somalia, while the never completed work of Moltoni & Ruscone (1940-44) deals with the remainder of Somalia.

As residents of Tanzania, R. E. Moreau, R. H. W. Pakenham, N. R. Fuggles-Couchman and Sir H. F. I. Elliott published a number of important papers during the 1940s and 1950s (mainly in *Ibis* and *Proc. Zool. Soc., London*), a tradition which continued until the independence era, including papers by L. A. Haldane and D. K. Thomas in *Tanganyika Notes & Records*. In contrast, the literature from countries to the north is curiously scant for these two decades, though it includes van Someren's 'Days with Birds' (*Fieldiana, Zool.* 38), a number of papers by K. D. Smith on Eritrea (mainly in *Ibis*) and a number of papers by Dr. L. H. Brown (mainly on eagles in *Ibis*). Indeed, Kenya, Uganda and the Sudan have continued to suffer from a dearth of definitive review literature to the present time, while the record for Tanzania and Ethiopia is far from complete.

After 18 years of compilation, and the publication of numerous papers in *Ibis* and the *Bulletin*, Mackworth-Praed & Grant (1952, 1955) provided eastern Africa (including Ethiopia, Somalia and northern Mozambique) with its first comprehensive 'bird-book'. This achievement, together with the appearance of Cave & Macdonald (1955) on the birds of the Sudan, allowed resident and visiting ornithologists to identify the birds of this important region with relative ease for the first time. It is remarkable that these two works and Jackson (1938) remain essential tools for both the museum worker and the field naturalist despite, the availability of field guides (Williams 1963, 1967).

The rich avifauna and diverse biomes of eastern Africa attract numerous visitors, both as expedition members and as amateurs on holiday, yet most of the impetus in the development of ornithology in this region has come from local institutions and residents. In the main, birds have been sadly neglected by research bodies in the region's various National Parks and academic institutions, so that the dominant position enjoyed by the East Africa Natural History Society (EANHS) and the National (formerly Coryndon) Museum in collating ornithological research has never been seriously challenged. The relationship between these two Nairobi-based institutions is essentially informal, each with its own particular interests and emphasis, though they share a library and journal. Perhaps because of this relationship, eastern Africa lacks the conflict between collectors and field naturalists so evident in some parts of the world, and a blend of careful field work and museum study has characterised its ornithology in recent decades, in particular in assessing problems of speciation.

As Curator of Ornithology in Nairobi during the 1950s and early 1960s,

and later as a wildlife consultant, J. G. Williams encouraged East African residents to collect specimens of particular interest, as well as instigating and assisting with a number of expeditions to little-worked areas. Williams published a number of short papers, including descriptions of several races, while *Mirafra williamsi* and a number of races were named for him. Unfortunately, his outstanding collection of sunbirds (Nectariniidae) and many other important collections made during this period were not retained in eastern Africa and neither were the 24,000 specimens collected earlier by V. G. L. van Someren, most of which are in the USA (*Ibis* 119: 221). Many of the specimens housed overseas have never been properly documented. There is, however, a fine series of papers on collections made for the Los Angeles County Museum, mainly from the forests of western Uganda (see, in particular, Friedmann 1966), while reports have appeared on a number of collections made for various other museums in the USA (e.g. Ripley & Heinrich 1966, Ripley & Bond 1971). These expedition reports and other papers include descriptions of a number of new races and 2 species (*Otus ireneae*, *Sylvietta philippae*). The extraordinary collection of about 9000 skins from Tanzania amassed by Thorkild Anderson between 1947 and 1967 has not yet been fully documented (Britton 1978b); most are housed in western Europe.

For political and financial reasons the role of the more recent curators in Nairobi (A. D. Forbes-Watson, G. R. Cunningham-van Someren) has been more parochial, consolidating the existing collections and providing assistance to an increasing flow of visitors. It has not been easy for overseas workers to obtain permission to collect in most parts of the region during the 1970s, but it is comparatively easy to do so in the Sudan. The Sudanese civil war hindered ornithological investigations in the 1960s and early 1970s, but significant finds have been made in recent years. M. A. Traylor collected a number of interesting specimens near the border with Zaire, many of them new for the Sudan, while the avifaunal survey of the South Sudan by G. Nikolaus, including the selective collecting of skins for the Bonn and Stuttgart museums in West Germany, has resulted in a number of interesting records. These include remarkable extensions of known range for *Turdus fischeri* and *Clytospiza dybowskii* and a number of specimens requiring description as new races, notably of *Eminia lepida*, *Chlorocichla laetissima* and *Serinus citrinelloides* from the Imatong Mountains. In recent years Dr. J. S. Ash has amassed a great deal of mainly unpublished data from Ethiopia and Somalia, including many hitherto unrecorded species and one new species (Ash 1979). On the whole, however, the avifauna of eastern Africa is now well-known, and unlikely to yield many surprises or much further material requiring description. Thus, emphasis and techniques have changed in recent years, with collecting playing a comparatively unimportant part in most research programmes.

In association with the Laboratory of Ornithology at Cornell University, M. E. W. North pioneered a serious study of bird vocalizations in the 1950s and early 1960s, while an East African ringing scheme had begun as early as 1946. The EANHS ringing scheme started in a small way and did not begin to make a significant impact until the early 1960s. Since taking over as Ringing Organizer in 1966, G. C. Backhurst has greatly improved the scheme, maintaining very high standards. The scheme controls ringing in

East Africa and the South Sudan, concentrating on Palaearctic migrants (for details see Backhurst 1977), though Ethiopian species are ringed in numbers too, notably for census and moult studies (see Zimmerman 1972 and Britton 1978a). The annual ringing of thousands of Palaearctic night migrants at Ngulia Lodge in eastern Kenya (Pearson & Backhurst 1976) is particularly important, accounting for 50% or more of the annual ringing total in recent years. The Nest Record Scheme of the EANHS, operated by Mrs. H. A. Britton since its inception in 1969, collects and collates breeding data from East Africa, including the extensive egg collections of Capt. C. R. S. Pitman, Dr. V. G. L. van Someren and Sir C. F. Belcher, and all published material, as well as current data submitted on printed cards. A separate ringing scheme operates in Ethiopia (see Ash 1978).

With its well-developed infrastructure and abundant opportunity, Kenya is a favourite for post-graduate students and other research workers from overseas. A number of long-term behavioural and ecological projects are currently in progress (detailed in *Scopus* 2(5)). Recent avifaunal surveys have emphasised ecology rather than systematics, notably for Kidepo Valley National Park in northern Uganda (Elliott 1972), Arusha National Park in northeastern Tanzania (Beesley 1972), the East Usambara Mountains in northeastern Tanzania (Stuart & Hutton 1977) and Sokoke Forest in coastal Kenya (Britton & Zimmerman 1979). Three of the above reports appeared as issues of the *Journal of the East Africa Natural History Society and National Museum*. This provides an ideal vehicle for reports of this type, and similar papers on Tsavo East National Park in eastern Kenya and the Dar es Salaam area of coastal Tanzania will appear early in 1980, as will a long paper on the breeding seasons of East African birds. In this same journal, Mann (1976) provided a useful service by collating the most important East African distributional records of recent decades.

Until 1976 the ornithological sub-committee of the EANHS consisted of only 2 members (Ringing Organizer and Nest Record Scheme Organizer). Its expansion to 10-12 members towards the end of 1976, and the launching of a quarterly ornithological journal *Scopus*, is arguably the most important ornithological development of recent decades. In addition to publishing papers on all aspects of ornithology in eastern Africa (including Mozambique, Malawi and Zambia), the sub-committee assesses all bird records from East Africa (Kenya, Tanzania and Uganda), producing an Annual Bird Report as a fifth issue of *Scopus*. This annual review includes a report on the Nest Record Scheme, but reports on the Ringing Scheme continue to appear as issues of the *Journal*.

There are two useful skeleton check-lists of East African birds (Backhurst & Backhurst 1970, Forbes-Watson 1971) and a more detailed work for Ethiopia (Urban & Brown 1971), but the region still has no definitive work comparable with those available for Zambia, Malawi and elsewhere (excepting the islands of Zanzibar and Pemba, admirably documented by Pakenham 1979). Early in 1977 the ornithological sub-committee began work on an approximately 400-page work on the status, habitat and distribution of East African birds, to appear early in 1980, edited by P. L. Britton. Dealing with such a rich yet poorly documented avifauna has proved immensely difficult, and its near completion after only 3 years represents a remarkable achievement for the sub-committee and its chairman Dr. D. J. Pearson. It is hoped

that this long-overdue definitive work will act as a catalyst so that the ornithology of this important region will flourish still more in the decades ahead.

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Ornithology in southern Africa, 1930 — 1980

by R. K. Brooke

1930 saw the publication of Part II (the passerine section) of W. L. Sclater's *Systema Avium Aethiopicarum*. This marked the close of the period of basic faunal exploration and also provided a modern classification and nomenclature within which the birds of south and east Africa could be studied and discussed. Prior to 1930 nearly all publications on Afrotropical ornithology dealt with faunal exploration, descriptions of new taxa and correct placing of taxa in the natural system. Such work is not yet completed but it is now a relatively minor constituent of studies on our birds.

1930 saw the start of the *Ostrich*, not the area's first indigenous ornithological journal but the first to survive till the present. After the war it was joined by the *Bokmakierie* and later the *Honeyguide*. In addition, much on ornithology was published in museum serials both in Africa and overseas and in wider natural history serials. The period has seen a spate of books on the faunas of different sections of the area. The first decade saw the appearance of Chapin's *Birds of the Belgian Congo* followed by Priest's *Birds of Southern Rhodesia*, Gill's *First Guide to South African Birds*, Winterbottom's *Revised Check List of the Birds of Northern Rhodesia*, Hoesch's & Niethammer's *Vogelwelt Deutsch-Suedwest-afrikas* and Roberts's *Birds of South Africa*. After the war many more books were published until one could say that most major areas were covered more or less satisfactorily by an annotated checklist or a handbook, the exceptions being northern Mozambique and Tanzania. Most of these books are mentioned again later, but three post war publications of wider scope must be mentioned here: White's *Revised Checklists of African Birds*; Mackworth-Praed & Grant's *Handbooks of African Birds*; Moreau & Hall's and Snow's *Atlas(es) of African Birds*. These three complexes of works have put the documentation of Afrotropical ornithology far ahead of the ornithology of the Neotropical and Oriental regions, the other predominantly tropical regions of the world.

1930 saw the first full year of the Southern African Ornithological Society's life, again not the first indigenous bird society but the first to survive till the present.

Southern African ornithology has been dominated by residents, often immigrants who made their homes there, compared with east Africa, which has depended on expatriates. Partly as a result of this and partly because of southern Africa's somewhat less complex variety of habitats and faunas there has been far more work on local lists and on faunal analysis in southern Africa than in east Africa, exemplified by the 90 issues of the *South African Avifauna Series* edited by Winterbottom. One disadvantage of the differences between developments in southern and eastern ornithology